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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,337	01/02/2004	Hans-Gerhard Kortmann	0275M-000845	7611

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HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. BOX 828  
BLOOMFIELD HILLS, MI 48303

EXAMINER



SHARP, JEFFREY ANDREW

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

 <b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/751,337	KORTMANN ET AL. 	
	Examiner	Art Unit	
	Jeffrey Sharp	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 14, 15 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 16-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Election/Restrictions*

[1] Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-13 and 16-29, drawn to a fastener and fastener assembly, classified in class 411, subclass 171.
- II. Claims 14-15, drawn to a method of making a fastener, classified in class 470, subclass 22.
- III. Claim 30, drawn to a process of using a fastener, classified in class 29.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product can be made from a materially different process.

Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the product can be used in a materially different process of using the product.

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Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

[2] During a telephone conversation with Chris Eusebi on 01 November 2004, a provisional election was made without traverse to prosecute invention I, drawn to a fastener and fastener assembly and pertinent to claims 1-13 and 16-29. Affirmation of this election must be made by applicant in replying to this Office action. Claims 14-15 and 30 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

#### *Status of Claims*

[3] Claims 1-30 are pending.

Claims 14-15 and 30 are withdrawn from consideration by the examiner.

#### *Drawings*

[4] The drawings are objected to because:

Paragraph 0037 "*refractory wall 2*" not shown in Figure 2.

Paragraph 0038 "*fastener 1*" not shown in Figure 3.

Paragraph 0039 "*supporting face 6*" not shown in Figure 4.

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Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

[5] The disclosure is objected to because of the following informalities:

Paragraph 0006 line 2-3 should be eliminated as referring to non-elected claims.  
A period should be added after "*claim 1*" in line 1. Line 3 should start with "*Advantageous embodiments...*"

Paragraph 0007 line 6, the word "*characterised*" is misspelled using English variant.

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Paragraph 0035 shows inconsistent terminology for identifier "6", as the numeral is used for both "*supporting face*" and "*bearing face*."

Paragraph 0037 "*refractory wall 2*" is not shown in Figure 2.

"*base member 15*" should be rewritten "*base member 5*" as identifier.

"15" is already used for "*recess*".

Paragraph 0038 "*fastener 1*" not shown in Figure 3.

Paragraph 0039 "*supporting face 6*" not shown in Figure 4.

There is no definition to support the "*web portion*" feature of the instant claim 18.

Appropriate correction is required.

### ***Claim Objections***

[6] Claims 11, 16, 24, and 26 are objected to because of the following informalities:

Claim 11 contains the phrase "*any of*" in line 1. This phrase should be deleted.

Claim 16 has no antecedent basis for "*the component*".

Claim 24 has no antecedent basis for "*said annular weldment area*".

Claim 26 has no antecedent basis for "*the ring stud*" or "*the structure*".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

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[7] The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

[8] Claims 12, 18, and 20 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As for claim 12, *"means for fixing a flat component"* is non-enabling, as it lacks particular structure. It is not understood what structure is necessary for *"fixing a flat component"*. The examiner has treated this limitation as *'a shank having a retaining feature so as to secure a flat component disposed about the shank between said retaining feature of the shank and said base member'*.

As for claim 18, there is no definition of a *"web portion"*.

As for claim 20, *"extending from the head opposite the shank"* is not clear, as it is not specified that the shank has an *'opposite'* direction. The examiner has treated this limitation as *'extending from the shank on a side of the shank opposite the head'*.

### ***Claim Rejections - 35 USC § 102***

[9] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

[10] Claims 1-7, 10-13, 16-23, 26, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Bregenzer et al. GB patent application 2,065,011.

Bregenzer et al. teach a base member (20) having a supporting face (top flange area of 20), a fastening face (26), and a shank (10). The base is annular, and the fastening face has a surface area smaller than the supporting face.

As for Claim 2, the fastener is rotationally symmetrical about the axis.

As for Claim 3, the annular fastening face (26) has an internal and external diameter, said external diameter is equal to the diameter of the supporting face (top flange area of 20).

As for Claim 4, the fastening face is polygonal, as it comprises a triangular structure (Pg 2 lines 26-27).

As for Claim 7, the height of the base member is anticipated to be 3 mm (Pg 2 line 47), not including the extra 0.6 mm for the annular weldment (28). Heights of various dimensions are anticipated, as the reference cites size proportions instead of in measurable length units (Pg 2 lines 24-25).

As for Claims 1, 5-6, 19-20, 23, 26, and 29, the supporting face is of sufficient size to allow the stable arrangement of a flat component. The ratio of fastening face area to supporting face area is visually shown to be approximately 23% and 43% in Figures 6 and 7, respectively. These ratios are less than the claimed 65% and 80% limitations. Bregenzer et al. also disclose



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that variations in size due to design are possible, and therefore list dimensions in the form of proportions (Pg 2 lines 22-25).

As for Claim 20, a laterally enlarged head (20) extends from an elongated shank (10), said head has: an annular section (28) extending from the head (20) in a direction away from the shank, a flat fastening face (26), and an aperture.


As for Claims 12, 13, and 17, the shank (10) has means for fixing a flat component, which includes but is not limited to screw threads, which are raised portions (Pg 1 lines 56-58).

As for Claims 10, 11, 21, and 22, the abutting face is less than 50%, and less than 40% of the supporting face (Pg 2 lines 22-23). Bregenzer et al. teach the base member to have as low as ~~5%~~6%, if the base member diameter is four times the shank diameter.

As for Claim 16, Bregenzer et al. teach an annular weldment (28) disposed between and coupling the weldable fastener to the structure.

As for Claim 18, the base portion comprises a web portion (22) with a surrounding portion (24).

[11] ~~Claims 1-5, 5-7, 10, 12-15, and 16-19 are also rejected under 35 U.S.C. 102(c) as being anticipated by Remasamy et al. LIS 2004/0120788 A1.~~

 ~~Remasamy et al. show a fastener having a base member (14) that is between 5 mm and 10 mm in height (Claim 7), including a web portion (21), a shank (12) having screw threads visibly shown, a supporting face (top of 14), a fastening face (26), an annular weldment (16), and all of the limitations of the claims above. The fastening face area is shown to be less than 80% and 65% of the supporting face area in Figure 1 (76%) and Figure 5 (48%),~~

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~~respectively. The abutting face area is seen to be smaller than 40% of the supporting face area (approximately 25% as shown in Figure 1). The structure taught by Ramasamy et al. can be used in similar panel applications.~~

[12] Claims 1-3, 5-7, and 9-13 are also rejected under 35 U.S.C. 102(b) as being anticipated by Irimeis US-5,493,833.

Irimeis shows a symmetrical fastener (10) having base member (14) that is between 3 mm and 10 mm in height (Col 5 line 11  $\approx$  9.5 mm), including a web portion (24), a shank (12), a supporting face (top of 24 towards shaft), a generally annular fastening face (annular edge of 14 away from shaft), and all of the limitations of the claims above. Irimeis anticipates the fastening face to have an area less than 80% and 65% of the supporting face area, and that the abutting face can have an area smaller than 40% of the supporting face area (Col 4 lines 62-66). The fastener has at least one radially extending raised portion on the shank (22), which may provide the means for fixing a flat component as stated in claim 12.

The structure taught by Irimeis can be used in similar panel applications with sufficiently the same function.

### ***Claim Rejections - 35 USC § 103***

[13] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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[14] Claims 4, 8-9, 18, and 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bregenzer et al. GB patent application 2,065,011 in view of Bartels US-Patent Pub 2002/0048498 A1.

Bregenzer et al. teach all of the claimed limitations described above. Further, Bregenzer et al. teach that "by changing the geometric form...all handicaps [of the prior art] can be eliminated" (Pg 2 lines 41-42), and that the base portion is "ring shaped" (Pg 3 line 10). The fastening surface is shown to comprise a polygonal portion (28).

However, Bregenzer et al. fail to disclose expressly the base member to comprise a polygonal periphery.

Bartels teaches a base member (12) welded to a carrier member (10), having a supporting face adapted to carry a component (26). The weld creates a web portion (11) pertinent to claim 18.

At the time of invention, it would have been obvious to one of ordinary skill in the art to modify the base member periphery taught by Bregenzer et al., to comprise the polygonal shape taught by Bartels, in order to 1) facilitate an applied torque to the base member, 2) create a mounting surface that resists rotation for a flat component having a mating polygonal aperture or recess, 3) provide a greater surface area for a stronger weld, 4) exhibit an aesthetically pleasing form, and 5) enable non-rotation of the fastener in a hopper, feeding tube, magazine, or feeding mechanism.

As for Claim 8, the fastener taught by Bartels is of modular design (shank 22 integral base member 22).

As for Claim 9, the base member has means to position the shank (22) on the supporting face of welded base member (12).

As for Claims 20-25, Bregenzer et al. show a head (20), but do not disclose the head to be separate and opposite from the base member. Bartels shows an enlarged head opposite the base member, and extending laterally from the shank, which can be used as an abutment surface for a flat component (26) that resides on a supporting surface of the base member (12).

As for Claims 26-29, Bregenzer et al. disclose a fastener to be used with plastic and metal sheets, panels, or the like. However, Bregenzer et al. do not visually depict how the fastener communicates with a component and carrier panel. Bregenzer et al. v. Bartels shows a modular base member and shank communicating to hold a component (26) having a generally planar surface against a supporting face of a base member (12), said base member being welded to a carrier panel (10).

As for Claim 23, the shank is coaxial to the supporting face (i.e., perpendicular).

As for Claim 24, Bartels teaches a head (Bartels above shank 22), having an exterior wall and radius approximately equal to that of the base member (Bartels 12). Bregenzer et al. teach the annular weldment (28) to comprise the whole fastening face surface area (Bregenzer et al. Figures 5 and 6). The combination of the two would leave one of ordinary skill in the art at the time of invention, to recognize an annular weldment to have the same radius as the head. See also Figure 8 of cited prior art reference US-6,755,601 to Ohta, which clearly demonstrates this concept.

As for Claim 25, the shank (Bregenzer et al. 10) is threaded (Bregenzer et al. Pg 1 lines 56-58).

*Conclusion*

[15] The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows:

US 3435871 A	USPAT	Johnson, Kenneth L.
US 3279517 A	USPAT	Logan, Lewis J.
US 2968713 A	USPAT	Harper, Ernest V.
US 6755601 B2	USPAT	Ohta, Youichi
US 6238121 B1	USPAT	Roser, Hermann
US 5586801 A	USPAT	Sawyer, David R. et al. (Figures 3-6)
US 5727810 A	USPAT	Elqadah, Wael S. et al. (element 100)
US 5207588 A	USPAT	Ladouceur, Harold A. et al. (Figure 1)
US 5067224 A	USPAT	Muller, R. M.
US 5020950 A	USPAT	Ladouceur, Harold A.
US 4633560 A	USPAT	Muller, Rudolph R. M. (Figures 1 and 2)
US 4609314 A	USPAT	Metz, Joseph R. (Figure 3)
US 2583868 A	USPAT	Mociun Anthony Thaddeus A
US 4799842 A	USPAT	Kreider et al.
US 3363084 A	USPAT	Konrad Busing
US 1496966 A	USPAT	Allan, W. G.

These references contain some or all of the structural elements claimed.

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[16] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Sharp whose telephone number is (703) 305-2693. The examiner can normally be reached on 7:30 am - 5:00 pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (703) 306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAS

  
ROBERT J. SANDY  
PRIMARY EXAMINER